APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,336	01/02/2004	John D. Doggett	50037.214US01	7612

27488   7590   08/06/2009
MERCHANT & GOULD (MICROSOFT)
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER
ANYA, CHARLES E

ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
08/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *03 April 2009*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 and 23-42* is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1 and 23-42* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a) ☐ All   b) ☐ Some * c) ☐ None of:

　　1. ☐ Certified copies of the priority documents have been received.

　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1 and 23-42 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1, 23, 26-30 and 33-37 and 40-42 are rejected under 35 U.S.C. 103(a)**

as being unpatentable over U.S. Pub. No. 2003/0191865 A1 to De Armas et al. in

view of U.S. Pat. No. 7,047,533 B2 issued to Circenis and further in view of U.S.

Pub. No. 2002/004623 A1 to Dieterich et al.

3.   As to claim 1, De Armas teaches a computer-implemented method for testing

user interface functionality through user interface automation synchronization, the

method comprising:

displaying a user interface window on a display of a computer, wherein the user

interface window permits action messages that cause a change to the user interface

window through asynchronous window procedures, wherein the user-interface window

is managed by a thread that processes the action messages, wherein the thread

includes a message queue that indicates the current execution of action messages

currently being processed by the thread (figure 3 "...sub-classing process..." page 3

paragraph 0035, page 4 paragraph 0048);

hooking the message queue of the thread with a synchronization API of event

driven test automation code to bypass the asynchronous window procedures for any

action messages received by the thread ("...insert injection DLL 134..." page 4

paragraph 0045).

De Armas is silent with reference to setting a timer to monitor the message

queue of the thread hooked with the synchronization API of the event driven test

automation code, wherein the timer is configured to monitor the message queue of the

thread to determine when the message queue is empty;

upon receiving an action message that causes the change to the user interface

window, determining, by the timer, when the message queue of the thread is empty

which indicates completion of the action message, and when the message queue is

empty to indicate completion of the action message, sending a notification via the

hooked synchronization API of the event driven test automation code to automatically

cause the processing of another action message on the user interface window being

displayed on the display of the computer and implicit user interface automation

synchronization that bypasses the asynchronous procedures.

Circenis teaches setting a timer to monitor the message queue of the thread

hooked with the synchronization API of the event driven test automation code, wherein

the timer is configured to monitor the message queue of the thread to determine when

the message queue is empty ("...wait utility...specify a time estimate (timeout)..." Col. 2
Ln. 32 – 42, Col. 4 Ln. 56 – 59, Timeout Manager 170 Col. 5 Ln. 59 – 63);

upon receiving an action message that causes the change to the user interface
window, determining, by the timer, when the message queue of the thread is empty
which indicates completion of the action message, and when the message queue is
empty to indicate completion of the action message, sending a notification of the event
driven test automation code to automatically cause the processing of another action
message on the user interface window being displayed on the display of the computer
("...wait utility...waiting for completion..." Col. 1 Ln. 64 - 67, "...mandatory...waiting..."
Col. 2 Ln. 1 – 8.

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to modify the system of De Armas with the teaching of Circenis
because the teaching of Circenis would improve the system of De Armas by providing a
generic wait utility for tracking of event executions including flexible or optimal waiting
functions (Circenis Col. 1 Ln. 41 – 49)

Dieterich teaches implicit user interface automation synchronization that
bypasses the asynchronous procedures ("...synchronization is implicit..." paragraph
0020).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to modify the system of Circenis and De Armas with the teaching of
Dieterich because the teaching of Dieterich would improve the system of Circenis and

De Armas by providing transmissions that are synchronized by an external clock

lowering overhead and thus, greater throughput.

4.   As to claim 23, Circenis teaches the computer-implemented method of claim 1,

wherein determining, by the timer, when the message queue of the thread is empty

which indicates completion of the action message includes calling a wait API ("...wait

utility...waiting for completion..." Col. 1 Ln. 64 - 67, "...mandatory...waiting..." Col. 2 Ln.

1 – 8).

5.   As to claim 26, Circenis teaches the computer-implemented method of claim 1,

wherein the timer monitors other threads beside the thread that includes the message

queue that indicates the current execution of action messages currently being

processed by the thread Timeout Manager 170 Col. 5 Ln. 59 – 63).

6.   As to claim 27, Circenis teaches the computer-implemented method of claim 26,

wherein determining, by the timer, when the message queue of the thread is empty

which indicates completion of the action message further includes determining whether

a message queue of other threads is empty ("...wait utility...specify a time estimate

(timeout)..." Col. 2 Ln. 32 – 42, Col. 4 Ln. 56 – 59, Timeout Manager 170 Col. 5 Ln. 59

– 63).

7.   As to claim 28, De Armas teaches the computer-implemented method of claim 1,

wherein the message queue is related to system activities related to the user interface

window (figure page 4 paragraph 0040).

8.   As to claims 29, 30 and 33-35, see the rejection of claims 1, 23 and 26-28

respectively.

9.   As to claims 36, 37 and 40-42, see the rejection of claims 1, 23 and 26-28

respectively.

10.   Claims 24, 25, 31, 32, 38 and 39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Pub. No. 2003/0191865 A1 to De Armas et al. in view of

U.S. Pat. No. 7,047,533 B2 issued to Circenis and further in view of U.S. Pub. No.

2002/0046230 A1 to Dieterich et al. as applied to claims 1, 29 and 36 above, and

further in view of U.S. Pub. No. 2003/0050834 A1 to Caplan.

11.   As to claim 24, Dieterich, Circenis and De Armas are silent with reference to the

computer-implemented method of claim I, wherein the synchronization API is stored in a

dynamic link library that is loaded into an application that generates the user interface

window.

Caplan teaches the computer-implemented method of claim I, wherein the

synchronization API is stored in a dynamic link library that is loaded into an application

that generates the user interface window ("...dynamic link library..." paragraphs

0097/0101).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Dieterich, Circenis and De Armas with the

teaching of Caplan because the teaching of Caplan would improve the system of

Dieterich, Circenis and De Armas by providing a library of executable functions or data

that can be used by a Windows application and typically one or more particular

functions and a program accesses the functions by creating either a static or dynamic

link to the DLL for faster and more efficient processing.

12.   As to claim 25, Caplan teaches the computer-implemented method of claim 24,

wherein the synchronization API is implemented by reference to hook code via the

dynamic link library ("...dynamic link library..." paragraphs 0097/0101).

13.   As to claims 31 and 38, see the rejection of claim 24 above.

14.   As to claims 32 and 39, see the rejection of claim 25 above.

Response to Arguments

Applicant's arguments with respect to claims 1, 23-42 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES E. ANYA whose telephone number is (571)272-3757. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cea.

/Li B. Zhen/
Primary Examiner, Art Unit 2194